

REMARKS

Reconsideration of the application is respectfully requested.

For the convenience of the Examiner, Applicants address the issues in the order in which they were raised in the Office Action.

Claims Rejected Under 35 U.S.C. §103

Claims 1, 4, 5, 10, 11, 16, 18-20, 22-24 and 26-27 stand rejected as being obvious over U.S. Patent No. 6,532,088 issued to Dantu ("Dantu") in view of U.S. Patent No. 6,587,235 issued to Chaudhuri, et al. ("Chaudhuri"). Applicants respectfully disagree with the rejection, because it would not have been obvious to modify the method for transporting IP user traffic in Dantu into one that uses DWDM. In addition, Applicants respectfully disagree with the contention at page 2 of the Office Action, namely that Dantu teaches, in col. 9, lines 8-36, Applicants' claimed *selecting a second route as a diverse alternate route for a first route to establish a connection upon failure of the first route, by comparing the first physical link with the second physical link and selecting the second route when the first physical link is different from the second physical link*.

In Dantu, a system and method for packet level distributed routing in fiber optic rings is described for transporting IP user traffic. Whenever a central node becomes aware from an overhead signaling message that a link has experienced a problem, it assign labels to data packets it produces on the fiber optic ring network to cause them to be transmitted on a protection path, as opposed to a working path. However, there is no teaching or suggestion that any comparison be made between a first physical link identifier that is associated with a first route, with a second physical link identifier that is associated with a second route, and where the second route is selected as the diverse alternate route when the first physical link identifier is different from the second physical link identifier. See Applicants' claim 16 as amended here. Note that the amendment does not introduce any new matter but more clearly identifies the subject matter to be claimed that is different from the prior art.

Although Dantu states that the forwarding tables (e.g., in the central node 300) include forwarding information for the working paths and the protection paths, and that additional information may be needed to enable the node to determine whether to forward a packet along a working path or a protection path, Dantu does not reasonably teach or suggest the selecting limitation in Applicants' claim 16 as amended here. Although the forwarding table in Dantu may identify the different paths as alternates for a particular destination address, it is not clear how this would teach or suggest the selecting operation recited in Applicants' amended claim 16. For instance, if in Dantu's forwarding table the two different paths have been identified for a particular port or destination address, and the node identifies one of these paths in a data packet it sends out to that destination address or through that port, it is not clear why it would be necessary to *compare a first physical link identifier that is associated with the first route, with a second physical link identifier that is associated with the second route and selecting the second route when the first physical link identifier is different from the second physical link identifier*. Accordingly, it is submitted that claim 16 is not anticipated nor is it obvious in view of Dantu.

Turning now to independent claim 24, this claim recites a computer system having means for selecting a second route as a diverse alternate route to reestablish a connection upon failure of the first route, including means for comparing that has a capability similar to that discussed above in connection with claim 16. Accordingly, this claim is neither anticipated nor obvious for at least the same reasons given above in support of claim 16.

As to claim 4, this claim also stands rejected for at least the same reasons discussed above that were given in the rejection of claim 1, namely, that Dantu allegedly teaches comparing a first physical link identifier with a second physical link identifier to select a diverse alternate route for a first route (Office Action at page 3, citing the same section in Dantu, col. 9, lines 8-36). However, in Dantu, there is no teaching or suggestion that the forwarding tables which contain information regarding the working and protection paths, be used in the manner recited in Applicants' claim 4 where, when it comes to selecting a diverse alternate route for the second route, a comparison is made between a first physical link identifier and a second physical link

identifier, and when these identifiers are different, the second route is selected as the diverse alternate route. Dantu merely refers to the use of forwarding tables to change from a working path to a protection path, when a central node becomes aware, from an overhead signaling message, that a communication link has experienced a problem. However, there is no further explanation concerning how the node would select a particular alternate path. Accordingly, Applicants' claim 4 would not have been obvious in view of Dantu.

As to claim 10, this claim is also submitted as being neither anticipated nor obvious for at least the reasons given above in support of claim 4.

In claim 20, a computer system is recited in which a processor is operable to receive instructions which cause the processor to perform with a capability similar to that argued above in support of claim 16. Accordingly, claim 20 as amended here, is not anticipated or obvious for at least the same reasons given above in support of claim 16.

Turning now to claim 1, this claim recites a route look-up procedure for a diverse route in a network of DWDM links. According to the Office Action, at page 3, Dantu discloses the entire claimed methodology. However, it appears that the Examiner intended to also rely on Chaudhuri for teaching the claimed DWDM links. Assuming that to be the case, Applicants disagree that it would have been obvious to replace Dantu's fiber optic ring network that provides for routing of IP traffic, with DWDM links. Nevertheless, Applicants have amended claim 1 to recite an embodiment of the invention in which a Private Network-to-Network Interface (PNNI) route look-up procedure is performed for a diverse route.

Dantu is directed to transporting user traffic in accordance with IP, which is a connectionless communication protocol. It would not have been obvious to replace such a protocol with an Asynchronous Transfer Mode (ATM) protocol which is connection-oriented and is associated with the PNNI signaling protocol. See page 8 of the article entitled "Private Network-to-Network Interface", Mika Loukola, which was cited by the Applicants in an Information Disclosure Statement filed May 10, 2002 here, for a description of the PNNI protocol. There is no suggestion to change the

connectionless protocol of Dantu into a connection oriented one, such as ATM and its associated signaling protocol PNNI. Accordingly, claim 1 is not anticipated or obvious for at least those additional reasons.

Any dependent claims not mentioned above are submitted as being neither anticipated nor obvious for at least the reasons given above in support of their respective base claims.

CONCLUSION

In sum, a good faith attempt has been made to explain why the rejection is improper, and to amend the claims as needed to render them in condition for allowance.

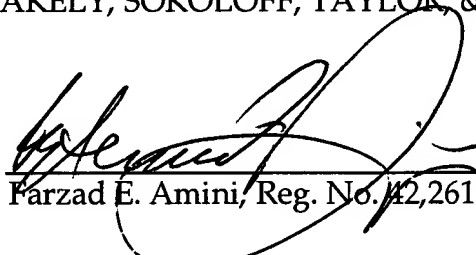
If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: March 21, 2006

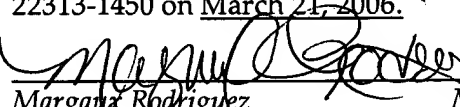
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Mariana Rodriguez

March 21, 2006

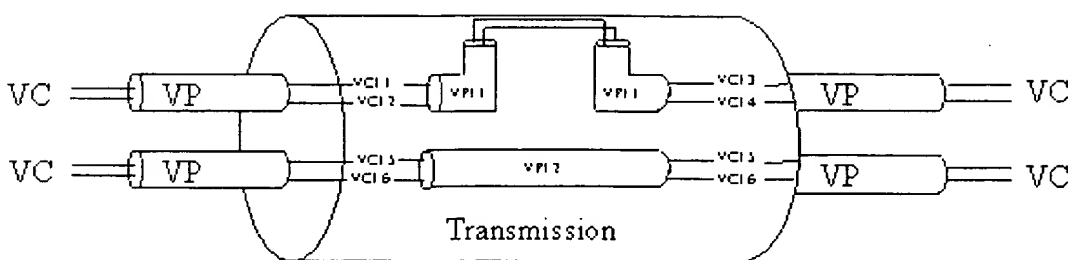


Figure 2-2. Transmission path [3, p.24].

2.2 General About The PNNI Protocol

But how does one get to influence the contents of the look-up table? Earlier every vendor had its own protocol for this purpose. Some switches' tables had to be configured manually.

The new signaling protocol Private Network-to-Network Interface (PNNI) can establish, maintain, and delete connections dynamically. In addition to traffic parameters, a user can specify Quality of Service parameters in the setup request. With the QoS parameters the user can specify the quality of the connection.

People often assume from its name, that the Private Network-to-Network Interface is a LAN protocol, but in fact it is a protocol for world-wide networks. PNNI makes it possible to establish a connection with a set of traffic and QoS parameters to the other side of the globe. PNNI is a protocol for world wide connection of private ATM networks (a la the internet) and not for interconnection of public telecom operator ATM networks. Broadband Inter-Carrier Interface (BICI) is intended for the latter.

PNNI protocol consists of two sub-protocols:

1. One protocol is defined for distributing topology information between switches and clusters of switches i.e. peer groups. This information is used in path calculations through the network. PNNI topology and routing is based on the well-known link-state routing technique. The PNNI Routing protocol is a member of the class of routing protocols known as map based routing protocols. These protocols operate by distributing descriptive information about networks or portions of the network [5, p.3].
2. Another protocol is used for signaling. It has mechanisms to support source routing, crankbacks, and alternative routing of call setup requests [1, p.11].

2.3 PNNI Hierarchy

The PNNI routing protocol views the world as a collection of peer groups. Switches that have identical Peer Group ID (Group ID) belong to the same peer group. Group IDs are specified at configuration time. All members of the group maintain an identical view of the group. There must be a path entirely within the set of switches, between any two switches in the set.